

# Improper Fractions and Mixed Numbers

R 3-8

A mixed number combines a whole number with a fraction. It is greater than one.

An improper fraction has a numerator that is larger than its denominator.

## How to Write an Improper Fraction as a Mixed Number

Write  $\frac{12}{5}$  as a mixed number.

Divide the numerator by the denominator.

The quotient is the whole number in the mixed number.

$$\begin{array}{r} 2 \\ 5 \overline{)12} \\ \underline{-10} \\ 2 \end{array}$$

The remainder is the numerator.  
The denominator stays the same.

$$\frac{12}{5} = 2\frac{2}{5}$$

## How to Write a Mixed Number as an Improper Fraction

Multiply the denominator by the whole number.

$$3\frac{2}{5}$$

$$5 \times 3 = 15$$

Then add the numerator.  $15 + 2 = 17$

Write this number for the numerator.  $\rightarrow 17$   
Use the original denominator.  $\rightarrow 5$

$$3\frac{2}{5} = \frac{17}{5}$$

1. Draw a picture to show  $4\frac{2}{3}$ .

Write each improper fraction as a whole number or mixed number in simplest form.

2.  $\frac{60}{40}$  \_\_\_\_\_

3.  $\frac{33}{10}$  \_\_\_\_\_

4.  $\frac{12}{7}$  \_\_\_\_\_

Write each mixed number as an improper fraction.

5.  $4\frac{1}{3}$  \_\_\_\_\_

6.  $1\frac{20}{50}$  \_\_\_\_\_

7.  $8\frac{7}{8}$  \_\_\_\_\_

8. **Reasoning** Write 6 as an improper fraction with a denominator of 10. \_\_\_\_\_